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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,873

03/29/2006

Richard Thomas Entwistle

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35301

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09/08/2008

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EXAMINER

FRISTOE JR, JOHN K

ART UNIT

PAPER NUMBER

3753

MAIL DATE

DELIVERY MODE

09/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,873	Applicant(s) ENTWISTLE ET AL.	
	Examiner JOHN K. FRISTOE JR	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/29/2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants' arguments filed 6/12/2008 have been fully considered but they are not persuasive. Applicants first argue that Tan does not disclose a suction nozzle arrangement, the examiner disagrees. As the flow through the main passage passes by the restricted orifice 40 this will cause a suction effect in the orifice. This is supported by Bernoulli's principal. Applicants further argue that since the orifice 40 is perpendicular to the outlet flow it cannot be a suction nozzle, the examiner disagrees. Again as the main flow passes over the orifice 40 the fluid will create suction within the orifice as supported by Bernoulli's principal. Applicants also argue that Kubiak does teach a nozzle that is a pipe with a slot, the examiner disagrees. Any conduit can be considered broadly as a pipe and Kubiak teaches a nozzle with a slot; therefore it is reasonable to modify the orifice of Tan with the teachings of Kubiak. Applicants then argue that the structure of Kubiak cannot prevent flow reversal, the examiner disagrees. If the slotted flow passage of Kubiak modified the suction nozzle of Tan then it would be extremely difficult for the flow to reverse through the slotted opening. Since the grounds of rejection were maintained the instant Office action has been made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-5, 9, and 10 as well as 8 as far as it is definite rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,687,759 (Tan). Tan discloses a valve arrangement comprising an inlet connection (14), an outlet connection (16), a flow path (24), a closing device (60, 22), a valve seat (22), a valve element (60), a resetting device (66), a first pressure chamber (26), a second pressure chamber (32), a channel arrangement (56, 58), at least one auxiliary valve (82), a throttle (48), a suction nozzle arrangement (36, 38, 40), at least one suction nozzle (38), bordering wall (36), wherein the suction nozzle arrangement (36, 38, 40) blocks (at least partially) into the channel (56, 58), wherein the suction nozzle arrangement (36, 38, 40) is connected to the housing (12) in at least two positions (near the upper portion of element 38 and near the lower portion of element 38), , a body (38), a pilot valve seat (upper surface of element 38), a pipe (36), an annular nozzle (inside surface of element 38), and a reduced (threaded section near the end of element 16 has an increased cross section) cross section (16).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,687,759 (Tan) in view of U.S. Pat. No. 4,025,045 (Kubiak). Tan discloses a valve arrangement comprising an inlet connection (14), an outlet connection (16), a flow path (24), a closing device (60, 22), a valve seat (22), a valve element (60), a resetting device (66), a first pressure chamber (26), a second pressure chamber (32), a channel arrangement (56, 58), at least

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one auxiliary valve (82), a throttle (48), a suction nozzle arrangement (36, 38, 40), at least one suction nozzle (38), bordering wall (36), wherein the suction nozzle arrangement (36, 38, 40) blocks (at least partially) into the channel (56, 58), wherein the suction nozzle arrangement (36, 38, 40) is connected to the housing (12) in at least two positions (near the upper portion of element 38 and near the lower portion of element 38), , a body (38), a pilot valve seat (upper surface of element 38), a pipe (36), an annular nozzle (inside surface of element 38), a front side channel (56), and a reduced (threaded section near the end of element 16 has an increased cross section) cross section (16) but lacks the pipe having a slot. Kubiak teaches a nozzle arrangement comprising a nozzle member (21) with a slot. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the valve arrangement of Tan by manufacturing the nozzle with a slot as taught by Kubiak in order to decrease the possibility of fluid being through the nozzle in the reverse direction.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926.

The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John K. Fristoe Jr./
John K. Fristoe Jr.
Primary Examiner
Art Unit 3753

JKF